



☒ EPA / EPO / OEB  
D - 80298 München  
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Fax 089 / 2399 - 4465

Europäisches  
Patentamt

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Patent Office

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DEGUSSA AG  
Intellectual Property Management  
PATENTE und MARKEN  
Standort Hanau  
Postfach 13 45  
  
63403 Hanau

Eingang bei  
Intellectual Property  
Management

22. FEB. 2005

Standort Wolfgang

Nr. der Anmeldung / Application No. / Demande de brevet n

PCT/EP 2005 / 0 0 1 6 8 8

Tag des Eingangs / Date of receipt / Date de réception

18. 02. 05

Zeichen des Anmelders / Vertreters - Applicant / Representative  
ref. No. - Référence du demandeur ou du mandataire

040065 AM

Anmelder / Applicant / Demandeur : DEGUSSA AG

Datum / Date 17.02.2005

### Empfangsbescheinigung / Receipt for documents / Récépissé de documents

Das Europäische Patentamt bescheinigt hiermit den Empfang folgender Dokumente :

The European Patent Office hereby acknowledges the receipt of the following :

L'Office européen des brevets accuse réception des documents indiqués ci-dessous :

#### A. Internationale Anmeldung / International application / Demande internationale

Stückzahl / No. of  
copies / Nombre  
d'exemplaires

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Antrag / Request / Requête   | 1 |
| <input checked="" type="checkbox"/> Beschreibung (ohne Sequenzprotokollteil<br>Description (excluding sequence listing part)<br>Description (sauf partie réservée au listage<br>des séquences) | 3 |
| <input checked="" type="checkbox"/> Patentansprüche / Claim(s) / Revendication(s)  | 3 |
| <input checked="" type="checkbox"/> Zusammenfassung / Abstract / Abrégé  | 3 |
| <input checked="" type="checkbox"/> Zeichnung(en) / Drawing(s) / Dessin(s)   | 3 |
| <input checked="" type="checkbox"/> Sequenzprotokollteil der Beschreibung<br>Sequence listing part of description<br>Partie de la description réservée au listage<br>des séquences             | 3 |
| <input type="checkbox"/> Beigefügte Unterlagen / Accompanying<br>items / Eléments joints   | — |

#### B. Beigefügte Dokumente / Accompanying documents / Documents joints

- |  |
|--|
| <input checked="" type="checkbox"/> Blatt für die Gebührenberechnung<br>Fee calculation sheet<br>Feuille de calcul des taxes |
| <input type="checkbox"/> Gesonderte unterzeichnete Vollmacht<br>Separate signed power of attorney<br>Pouvoir distinct signé  |

☒ Kopie der allgemeinen Vollmacht  
Copy of general power of attorney (AV 43529)  
Copie du pouvoir général

☐ Prioritätsbeleg(e)  
Priority document(s) (will follow)  
Document(s) de priorité

☒ Gesonderte Angaben zu hinterlegten  
Mikroorganismen oder anderem biologischen  
Material  
Separate indications concerning deposited micro-  
organism or other biological material  
Indications séparées concernant des micro-  
organismes ou autre matériel biologique déposés

☒ Protokoll der Nucleotid- und/oder  
Aminosäuresequenzen in computerlesbarer Form  
Nucleotide and/or amino acid sequence listing in  
computer readable form  
Listage des séquences de nucléotides ou d'acides  
aminés sous forme déchiffable par ordinateur

☒ Abbuchungsauftrag  
Debit order Währung/Currency/Monnaie  
Ordre de débit Betrag/Amount/Montant

☐ Scheck  
Cheque EUR 2.928,00  
Chèque Ausfüllung freigestellt/  
Optional/facultatif

☒ Sonstige Unterlagen (einzeln auflisten)  
Other documents (specify)  
Autres documents (préciser)

PCT-EASY-Diskette

Die genannten Unterlagen sind am oben genannten Tag eingegangen. Die in der Kontrollliste (Feld VIII) des PCT-Antragsformulars RO/101 angegebenen Blattzahlen wurden bei Eingang nicht geprüft. Die Anmeldung hat die ebenfalls oben angeführte Anmeldenummer erhalten / The said items were received on the date indicated above. No check was made on receipt that the number of sheets indicated in the check list (box VIII) of the PCT Request Form RO/101 was correct. The application has been assigned the above-indicated application number / Les documents mentionnés ont été reçus à la date indiquée. L'exactitude du nombre de feuilles indiqué au bordereau (cadre VIII) du formulaire de requête PCT RO/101 n'a pas été contrôlée lors du dépôt. Le numéro figurant ci-dessus a été attribué à la demande de brevet



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Postfach 13 45

63403 Hanau

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Tag des Eingangs / Date of receipt / Date de réception

Zeichen des Anmelders / Vertreters – Applicant / Representative  
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040065 AM

Anmelder / Applicant / Demandeur : DEGUSSA AG

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A. Internationale Anmeldung / International  
application / Demande internationale

Stückzahl / No. of  
copies / Nombre  
d'exemplaires

- ☒ Antrag / Request / Requête 1
- ☒ Beschreibung (ohne Sequenzprotokollteil  
Description (excluding sequence listing part)  
Description (sauf partie réservée au listage  
des séquences) 3
- ☒ Patentansprüche / Claim(s) / Revendication(s) 3
- ☒ Zusammenfassung / Abstract / Abrégé 3
- ☒ Zeichnung(en) / Drawing(s) / Dessin(s) 3
- ☒ Sequenzprotokollteil der Beschreibung  
Sequence listing part of description  
Partie de la description réservée au listage  
des séquences 3
- ☐ Beigefügte Unterlagen / Accompanying  
items / Éléments joints

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Copie du pouvoir général

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- ☒ Gesonderte Angaben zu hinterlegten  
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organism or other biological material  
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organismes ou autre matériel biologique déposés

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Cheque  
Chèque

- ☒ Sonstige Unterlagen (einzeln aufführen)  
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Autres documents (préciser)

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Die genannten Unterlagen sind am oben genannten Tag eingegangen. Die in der Kontrollliste (Feld VIII) des PCT-Antragsformulars RO/101 angegebenen Blattzahlen wurden bei Eingang nicht geprüft. Die Anmeldung hat die ebenfalls oben angeführte Anmeldenummer erhalten / The said items were received on the date indicated above. No check was made on receipt that the number of sheets indicated in the check list (box VIII) of the PCT Request Form RO/101 was correct. The application has been assigned the above-indicated application number / Les documents mentionnés ont été reçus à la date indiquée. L'exactitude du nombre de feuilles indiqué au bordereau (cadre VIII) du formulaire de requête PCT RO/101 n'a pas été contrôlée lors du dépôt. Le numéro figurant ci-dessus a été attribué à la demande de brevet

**PCT REQUEST**

Original (for SUBMISSION )

<b>0</b>	<b>For receiving Office use only</b>	
<b>0-1</b>	International Application No.	
<b>0-2</b>	International Filing Date	
<b>0-3</b>	Name of receiving Office and "PCT International Application"	
<b>0-4</b>	<b>Form PCT/RO/101 PCT Request</b>	
<b>0-4-1</b>	Prepared Using	<b>PCT-SAFE [EASY mode] Version 3.50 (Build 0002.169)</b>
<b>0-5</b>	<b>Petition</b> The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
<b>0-6</b>	<b>Receiving Office (specified by the applicant)</b>	<b>European Patent Office (EPO) (RO/EP)</b>
<b>0-7</b>	<b>Applicant's or agent's file reference</b>	<b>040065 AM</b>
<b>I</b>	<b>Title of invention</b>	<b>EXPRESSION OF NITRILE HYDRATASES IN A TWO-VECTOR EXPRESSION SYSTEM</b>
<b>II</b>	<b>Applicant</b>	
<b>II-1</b>	This person is	<b>applicant only</b>
<b>II-2</b>	Applicant for	<b>all designated States except US</b>
<b>II-4</b>	Name	<b>DEGUSSA AG</b>
<b>II-5</b>	Address	<b>Bennigsenplatz 1 40474 Düsseldorf Germany</b>
<b>II-6</b>	State of nationality	<b>DE</b>
<b>II-7</b>	State of residence	<b>DE</b>
<b>II-8</b>	Telephone No.	<b>0 61 81 / 59-39 24</b>
<b>II-9</b>	Facsimile No.	<b>0 61 81 / 59-43 04</b>
<b>III-1</b>	<b>Applicant and/or inventor</b>	
<b>III-1-1</b>	This person is	<b>applicant and inventor</b>
<b>III-1-2</b>	Applicant for	<b>US only</b>
<b>III-1-4</b>	Name (LAST, First)	<b>VERSECK, Stefan</b>
<b>III-1-5</b>	Address	<b>Alicestrasse 8 63456 Hanau Germany</b>
<b>III-1-6</b>	State of nationality	<b>DE</b>
<b>III-1-7</b>	State of residence	<b>DE</b>

## PCT REQUEST

Original (for SUBMISSION )

III-2	Applicant and/or inventor	
III-2-1	This person is	applicant and inventor
III-2-2	Applicant for	US only
III-2-4	Name (LAST, First)	OSSWALD, Steffen
III-2-5	Address	Landwehrstrasse 33 63517 Rodenbach Germany
III-2-6	State of nationality	DE
III-2-7	State of residence	DE
III-3	Applicant and/or inventor	
III-3-1	This person is	applicant and inventor
III-3-2	Applicant for	US only
III-3-4	Name (LAST, First)	PHONG, Wai-Yee
III-3-5	Address	Blk 56, Sims Drive, #09-1089 380056 Singapore Singapore
III-3-6	State of nationality	SG
III-3-7	State of residence	SG
III-4	Applicant and/or inventor	
III-4-1	This person is	applicant and inventor
III-4-2	Applicant for	US only
III-4-4	Name (LAST, First)	LIEBETON, Klaus
III-4-5	Address	Heinrichstrasse 2a 64673 Zwingenberg Germany
III-4-6	State of nationality	DE
III-4-7	State of residence	DE
III-5	Applicant and/or inventor	
III-5-1	This person is	applicant and inventor
III-5-2	Applicant for	US only
III-5-4	Name (LAST, First)	ECK, Jürgen
III-5-5	Address	Jakobsweg 48 64625 Bensheim Germany
III-5-6	State of nationality	DE
III-5-7	State of residence	DE


## PCT REQUEST

Original (for SUBMISSION )

IV-1	Agent or common representative; or address for correspondence The person identified below is hereby/ has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:	<b>common representative</b>	
IV-1-1	Name	<b>DEGUSSA AG</b>	
IV-1-2	Address	<b>Intellectual Property Management PATENTE und MARKEN Standort Hanau Postfach 13 45 63403 Hanau Germany</b>	
IV-1-3	Telephone No.	<b>0 61 81 / 59-39 24</b>	
IV-1-4	Facsimile No.	<b>0 61 81 / 59-43 04</b>	
V	DESIGNATIONS		
V-1	The filing of this request constitutes under Rule 4.9(a), the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.		
VI-1	Priority claim of earlier national application		
VI-1-1	Filing date	<b>20 March 2004 (20.03.2004)</b>	
VI-1-2	Number	<b>10 2004 013 843.5</b>	
VI-1-3	Country	<b>DE</b>	
VII-1	International Searching Authority Chosen	<b>European Patent Office (EPO) (ISA/EP)</b>	
VIII	Declarations	Number of declarations	
VIII-1	Declaration as to the identity of the inventor	-	
VIII-2	Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent	-	
VIII-3	Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application	-	
VIII-4	Declaration of inventorship (only for the purposes of the designation of the United States of America)	-	
VIII-5	Declaration as to non-prejudicial disclosures or exceptions to lack of novelty	-	

## PCT REQUEST

Original (for SUBMISSION )

IX	Check list	number of sheets	electronic file(s) attached
IX-1	Request (including declaration sheets)	5	
IX-2	Description (excluding sequence listing part)	35	-
IX-3	Claims	2	-
IX-4	Abstract	1	
IX-5	Drawings	5	-
IX-7a	Sub-total number of sheets	48	
IX-6a	Sequence listing part of description	26	-
IX-7	TOTAL	74	
	<b>Accompanying Items</b>	<b>paper document(s) attached</b>	<b>electronic file(s) attached</b>
IX-8	Fee calculation sheet		-
IX-11	Copy of general power of attorney	reference no. AV 43529	-
IX-15	Separate indications concerning deposited microorganism or other biological material		-
IX-16(A)	Sequence listing in computer readable form		
IX-16(A) -(i)	copy submitted for the purposes of international search under Rule 13ter only (and not as part of the international application)	-	1 Diskette
IX-17	PCT-SAFE physical media	-	
IX-19	Figure of the drawings which should accompany the abstract	-	
IX-20	Language of filing of the international application	English	
X-1	Signature of applicant, agent or common representative		
X-1-1	Name	DEGUSSA AG	
X-1-2	Name of signatory	i. V. Dr. Stefan Retzow	
X-1-3	Capacity	AV 43529	

040065 AM

5/5

**PCT REQUEST**

Original (for SUBMISSION )

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10-1	Date of actual receipt of the purported international application	
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	
10-5	International Searching Authority	ISA/EP
10-6	Transmittal of search copy delayed until search fee is paid	

**FOR INTERNATIONAL BUREAU USE ONLY**

11-1	Date of receipt of the record copy by the International Bureau	
------	--	--

**PCT (ANNEX - FEE CALCULATION SHEET)**Original (for **SUBMISSION**)

(This sheet is not part of and does not count as a sheet of the international application)

<b>0</b>	<b>For receiving Office use only</b>	
<b>0-1</b>	International Application No.	
<b>0-2</b>	Date stamp of the receiving Office	
<b>0-4</b>	<b>Form PCT/RO/101 (Annex)</b>	
<b>0-4-1</b>	<b>PCT Fee Calculation Sheet</b>	
	Prepared Using	<b>PCT-SAFE [EASY mode] Version 3.50 (Build 0002.169)</b>
<b>0-9</b>	<b>Applicant's or agent's file reference</b>	<b>040065 AM</b>
<b>2</b>	<b>Applicant</b>	<b>DEGUSSA AG</b>
<b>12</b>	<b>Calculation of prescribed fees</b>	
	fee amount/multiplier	Total amounts (EUR)
12-1	Transmittal fee <b>T</b>	<b>100</b>
12-2-1	Search fee <b>S</b>	<b>1550</b>
12-2-2	International search to be carried out by <b>EP</b>	
12-3	International filing fee (first 30 sheets) <b>I1</b>	<b>902</b>
12-4	Remaining sheets <b>44</b>	
12-5	Additional amount <b>(X) 10</b>	
12-6	Total additional amount <b>I2</b>	<b>440</b>
12-7	<b>I1 + I2 = I</b>	<b>1342</b>
12-12	EASY Filing reduction <b>R</b>	<b>-64</b>
12-13	Total International filing fee (I-R) <b>I</b>	<b>1278</b>
12-14	Fee for priority document	
	Number of priority documents requested <b>0</b>	
12-15	Fee per document <b>(X) 30</b>	
12-16	Total priority document fee: <b>P</b>	
<b>12-17</b>	<b>TOTAL FEES PAYABLE (T+S+I+P)</b>	<b>2928</b>
<b>12-19</b>	<b>Mode of payment</b>	<b>authorization to charge deposit account</b>
<b>12-20</b>	<b>Deposit account instructions</b>	
	The receiving Office	<b>European Patent Office (EPO) (RO/EP)</b>
12-20-1	Authorization to charge the total fees indicated above	
12-20-2	Authorization to charge any deficiency or credit any overpayment in the total fees indicated above	
<b>12-21</b>	<b>Deposit account No.</b>	<b>28000215</b>
<b>12-22</b>	<b>Date</b>	<b>17 February 2005 (17.02.2005)</b>
<b>12-23</b>	<b>Name and signature</b>	<b>DEGUSSA AG i. V. Dr. Stefan Retzow (AV 43529)</b> 



## PCT

Original (for SUBMISSION )

0-1	Form PCT/RO/134 (SAFE) Indications Relating to Deposited Microorganism(s) or Other Biological Material (PCT Rule 13bis)	
0-1-1	Prepared Using	PCT-SAFE [EASY mode] Version 3.50 (Build 0002.169)
0-2	International Application No.	
0-3	Applicant's or agent's file reference	040065 AM

1	The indications made below relate to the deposited microorganism(s) or other biological material referred to in the description on:	
1-1	page	22
1-2	line	8-13
1-3	Identification of deposit	
1-3-1	Name of depositary institution	DSMZ DSMZ-Deutsche Sammlung von Mikroor- ganismen und Zellkulturen GmbH
1-3-2	Address of depositary institution	Mascheroder Weg 1b, D-38124 Braunschweig, Germany
1-3-3	Date of deposit	22 October 2002 (22.10.2002)
1-3-4	Accession Number	DSMZ 15261
1-5	Designated States for Which Indications are Made	all designations
2	The indications made below relate to the deposited microorganism(s) or other biological material referred to in the description on:	
2-1	page	22
2-2	line	8-13
2-3	Identification of deposit	
2-3-1	Name of depositary institution	DSMZ DSMZ-Deutsche Sammlung von Mikroor- ganismen und Zellkulturen GmbH
2-3-2	Address of depositary institution	Mascheroder Weg 1b, D-38124 Braunschweig, Germany
2-3-3	Date of deposit	25 October 2002 (25.10.2002)
2-3-4	Accession Number	DSMZ 15265
2-5	Designated States for Which Indications are Made	all designations
3	The indications made below relate to the deposited microorganism(s) or other biological material referred to in the description on:	
3-1	page	22
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3-3-2	Address of depositary institution	Mascheroder Weg 1b, D-38124 Braunschweig, Germany
3-3-3	Date of deposit	22 October 2002 (22.10.2002)
3-3-4	Accession Number	DSMZ 15258
3-5	Designated States for Which Indications are Made	all designations

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Original (for SUBMISSION )

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0-4	This form was received with the international application: (yes or no)	
0-4-1	Authorized officer	

**FOR INTERNATIONAL BUREAU USE ONLY**

0-5	This form was received by the international Bureau on:	
0-5-1	Authorized officer	

The present invention relates to a novel system for expressing nitrile hydratase. In this system, the nitrile hydratases, which are composed of subunits, are formed such that the respective subunits are located on different plasmids and are expressed simultaneously in *E. coli*.

PCT

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13-2-7	Validation messages Contents	Green? Priority 1. The priority document is not enclosed. (The applicant must furnish it within 16 months from the earliest priority date claimed)
13-2-8	Validation messages Fees	Green? Please confirm that fee schedule utilized is the latest available
13-2-9	Validation messages Payment	Green? Please ensure that you have a valid deposit account with the receiving Office selected.

1 **ALLGEMEINE VOLLMACHT**  
**GENERAL AUTHORISATION**  
**POUVOIR GENERAL**

Nr. der allgemeinen Vollmacht / General Authorisation No.  
N° du pouvoir général

43529

2 Ich (Wir) / I (We) / Je (Nous)

Degussa AG  
Bennigsenplatz 1  
D-40474 Düsseldorf

Herrn  
Dr. Stefan Retzow  
Degussa AG  
Intellectual Property Management  
Patente und Marken  
Standort Wolfgang  
Postfach 1345  
D-63403 Hanau

3 bevollmächtigte(n) hiermit / do hereby authorise / autorise (autorisons) par la présente

Herrn  
Dr. Stefan Retzow  
European Patent Attorney  
Zustellungsanschrift:

Degussa AG  
Intellectual Property Management  
Patente und Marken  
Standort Wolfgang  
Postfach 1345  
D-63403 Hanau

4 mich (uns) in den durch das Europäische Patentübereinkommen geschaffenen Verfahren in allen meinen (unseren) Patentangelegenheiten zu vertreten,  
alle Handlungen für mich (uns) vorzunehmen und Zahlungen für mich (uns) in Empfang zu nehmen.  
to represent me (us) in all proceedings established by the European Patent Convention and to act for me (us) in all patent transactions and to receive  
payments on my (our) behalf.

A me (nous) représenter pour ce qui concerne toutes mes (nos) affaires de brevet dans toute procédure instituée par la Convention sur le brevet européen  
et, à ce titre, à agir en mon (notre) nom et à recevoir des paiements pour mon (notre) compte.

☒ Die Vollmacht gilt auch für Verfahren nach dem Vertrag über die internationale Zusammenarbeit auf dem Gebiet des Patentwesens.  
This authorisation shall also apply to the same extent to any proceedings established by the Patent Cooperation Treaty.  
Ce pouvoir s'applique également à toute procédure instituée par le Traité de coopération en matière de brevets.

☐ Weitere Vertreter sind auf einem gesonderten Blatt angegeben. / Additional representatives indicated on supplementary sheet.  
Les autres mandataires sont mentionnés sur une feuille supplémentaire.

5 ☒ Untervollmacht kann erteilt werden. / Sub-authorisation may be given. / Le pouvoir pourra être délégué.

6 ☒ Bitte die gelbe Kopie, ergänzt um die Nr. der allgemeinen Vollmacht, an den Vollmachtgeber zurücksenden.  
Please return the yellow copy, supplemented by the General Authorisation No., to the authorisor.  
Prière de renvoyer la copie jaune au mandant, munie du n° du pouvoir général.

Ort / Place / Lieu Hanau

Datum / Date 26.03.2001

Unterschrift(en) / Signature(s)

Degussa AG  
ppa.  
Dr. Matthias Schäfer  
Prokurist

ppa.  
Dr. Wolfgang Weber  
Prokurist

7 Das Formblatt muß vom (von den) Vollmachtgeber(n) (bei juristischen Personen vom Unterschriftsberechtigten) eigenhändig unterzeichnet sein. Nach der Unterschrift bitte den  
(die) Namen des (der) Unterzeichneten mit Schreibmaschine wiederholen (bei juristischen Personen die Stellung des Unterschriftsberechtigten innerhalb der Gesellschaft  
angeben).

The form must bear the personal signature(s) of the authorisor(s) (in the case of legal persons, that of the officer empowered to sign). After the signature, please type the name(s)  
of the signatory(ies) adding, in the case of legal persons, his (their) position within the company.

Le formulaire doit être signé de la propre main du (des) mandant(s) (dans le cas de personnes morales, de la personne ayant qualité pour signer). Veuillez ajouter à la machine,  
après la signature, le (les) nom(s) du (des) signataire(s) en mentionnant, dans le cas de personnes morales, ses (leurs) fonctions au sein de la société.

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